

GOING CAMPING

Instead of packing tents, backpacks, cooking gear, the ol' fishing pole, and hiking into the wilderness this summer, many thousands of youngsters are camping out with the **TIMEX Personal Computer** and hiking into the enchanted wilderness known as "hi-tech" computerology.

To find out what's been cooking this past summer, we took a fast peek at a couple of local **TIMEX** Computer Camps.

SUMMER COMPUTING FESTIVAL

During July and August, Online Computer Education of Salem, Connecticut hosted a summer Computer Festival for youngsters 8-through-16. This five-day (Monday to Friday) computer camp ran from 9:30 a.m. to 2:30 p.m. in eight locations across Connecticut.

Small class size (16-18 campers) and thor-

oughly knowledgeable instructors permit individual attention. Lectures and "hands-on" experience provide a well-rounded program. Campers are introduced to programming, games, graphics, machine functions, and prerecorded software. Director Robert M. Valuk explains, "Campers are encouraged to establish their own objectives and to utilize the computer to achieve these goals."

Tuition of \$195 includes **T/S 1000** computer, course materials, FESTIVAL T-shirt, special awards, milk, juice and snacks (lunch is brought from home), and a \$10.00 gift certificate.

"By learning about the computer — its capabilities and potential uses, these kids are preparing themselves for the hi-tech job market of tomorrow," adds Mr. Valuk, "and in that respect are way ahead of the game."

camper's desire to learn; unfortunately, computer curriculum is still not well defined in many schools."

Professionally-planned instruction and "hands-on" experimentation stimulates camper exploration of the **TIMEX** computer, its characteristics, language, and graphic capabilities. Limited enrollment and a four-to-one student-to-instructor ratio promotes one-to-one dialogue to inspire the camper to independently learn to utilize the computer to his or her own best advantage.

All activities, trips, lunch, snacks, and T-shirts are included in the \$175.00 day-camp tuition. Campers can purchase **TIMEX** computer equipment at a special, low, educational-program price.

Camping out with the **TIMEX Personal Computer** is a totally exhilarating summer vacation — one that's well received by campers and parents alike.

Joan Donald, Director of Summer Programs at Post College, describes camper enthusiasm in this manner, "Because the campers became so absorbed with their **TIMEX** Computer, it was difficult, at times, to pry them loose — even for lunch and their afternoon of recreational activity."

Continued on page 5



ONLINE COMPUTER CAMP AT GLASTONBURY, CONNECTICUT



MEET THE COMPUTER

Post College in Waterbury, Connecticut, ran a summer camp program called Meet the Computer. In the morning, the campers work with the **TIMEX Sinclair Personal Computer** and after lunch, the youngsters are treated to sports, social activities, and local trips. Two week-long sessions were

held; the July gathering was for younger campers aged 10-to-13 and the August powwow was geared to the 14-16 age group.

Speaking about computer camps, Post's Educational Director Roger LaFrance tells us, "The computer camp is an ideal bridge between the technology around us and the



POST COLLEGE'S MEET THE COMPUTER



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SEPTEMBER, OCTOBER,
NOVEMBER 1983**

DON'T PLAY DOCTOR WITH YOUR TIMEX PERSONAL COMPUTER

All **TIMEX Sinclair** computer products have been carefully engineered and tested to provide dependable and trouble-free service. However, since no complex system can ever be made 100% "fail-safe", a malfunction may unexpectedly crop up on rare occasions.

Please do remember that your computer — tiny as it is — is actually a complex, sophisticated, and sensitive electronic instrument. Thus, any repairs should only be made by a trained and qualified technician.

Unauthorized attempts to disassemble and fix your computer could result in the following consequences: First, tampering with the computer will void the warranty; you will be billed for servicing that otherwise would have been performed free-of-charge. Secondly, what originally may have been a

small, fast job may have been transformed into a time-consuming major overhaul.

THE RIGHT RX

Your **TIMEX Sinclair 1000™ Personal Computer** is a sturdy, well-constructed instrument. Nevertheless, observing a few common sense precautions will help to extend the life of the unit:

- Use a damp, lint-free cloth to periodically clean your computer of dust, dirt, and grime
- Install your computer in a reasonably secure location — one that is not prone to injury (i.e. falling off a table)
- Periodically check for loose electrical connections and frayed wires
- Don't overload house electrical circuits by connecting too many power plugs to

the same wall socket

- Although the membrane keyboard is reasonably resistant to damage, avoid spilling liquids and other debris on its surface and avoid the use of sharp objects to press the keys — this will help to promote long and reliable operation

WHEN REPAIRS ARE NECESSARY

TIMEX maintains a fully-equipped, fully-staffed internal repair facility at Little Rock, Arkansas. Our trained technicians stand ready to make all necessary repairs.

Experience has demonstrated that a large percentage of those computers — that are returned for service — actually do not require repairs. So, before returning your computer, refer to the following troubleshooting table to determine if repairs are really needed.

TROUBLESHOOTING YOUR COMPUTER

SYMPTOM

"SNOW" OR "FUZZ" ON TV SCREEN

PROBABLE CAUSE

Incorrect Computer Installation

Loose Electrical Connections

Maladjusted Fine Tuning Control

Switch Box Set to Wrong Position

Channel Selectors Set to Wrong Position

Loose RAM Module (if used)

REMEDY

Refer to the installation diagram in your **T/S** User Manual and install the computer correctly.

Check all electrical connections and confirm that they are tight.

Adjust fine tuning control on the TV until the interference disappears.

Set two-position switch on the switch box to position

COMPUTER.

Confirm that channel selector switch on TV and on the underside of the computer are both set to the same channel.

Disconnect the 9V DC power cord to the computer. Detach the RAM Module from circuit card at rear of computer. Carefully but securely reinstall the RAM Module. Restore power to the computer by reconnecting the 9V DC adaptor.

Check all electrical connections between the TV and the computer and confirm that they are tight.

Disconnect 9V DC power connector at the computer. Then reattach the connector. It may be necessary to repeat this step several times; you can also jiggle the connector until the **K** cursor is produced.

Adjust the TV horizontal control until the **K** cursor appears at the bottom of the screen.

Refer to previously described remedy.

Program statement is written incorrectly and will need to be revised. Refer to the **T/S** User Manual for assistance.

CAN'T GET K CURSOR ON TV SCREEN

Loose Electrical Connections

Loose Power Cord Plug

K Cursor Off-Screen

Loose Ram Module (if used)

Incorrect Syntax

PROGRAM WON'T RUN — S CURSOR (MARKER) IS DISPLAYED

PROGRAM WON'T RUN — ERROR CODE IS DISPLAYED AT BOTTOM OF SCREEN

Incorrect Program Logic

Program logic is faulty and the program stops. Error code (refer to report code definitions in the **T/S** User Manual) identifies reason why the program stopped and line at which the program stopped.

Debug the program; refer to the **T/S** User Manual for assistance.

TROUBLE SHOOTING YOUR COMPUTER (con't)

SYMPTOM	PROBABLE CAUSE	REMEDY
PROGRAM RUNS, BUT WITHOUT DATA YOU'VE ALREADY ENTERED	Using RUN Command to Initiate Program	Use of RUN command deletes all user-entered data stored in memory. Instead of the RUN command use GOTO command to initiate the program — refer to the instructions that accompany your TIMEX software cassette.
PROGRAM WON'T LOAD	Loose Electrical Connections	Check all electrical connections between the computer, the TV and the tape recorder; confirm that they are tight.
	Improper Recorder to Computer Interconnections	Tape recorder and the computer are not connected ear-to-ear, or different color connectors are used.
		Check the Transmitting Cable and confirm that the <u>same color</u> connectors are secured to the EAR jacks on both the tape recorder and the computer.
		The EAR and the MIC jacks should <u>never</u> be connected simultaneously.
	Volume Level Too High or Too Low	Correct tape recorder volume is important. Experiment with the volume level until the program does load (loading will usually occur when volume level is set within a range of 1/2-to 3/4-of maximum volume).
	Heads of Tape Recorder are Misaligned	A simple and inexpensive adjustment can be performed at your local electronics store.
	Improper Naming Conventions When Program has been Saved	The correct method of saving a program is to use the SAVE command and the new program name in quotes (i.e. SAVE "NEW PROGRAM NAME").
	Computer Cannot Read Program Name	Load program with the following alternate loading command: LOAD " "
PROGRAM WON'T SAVE	Loose Electrical Connections	Refer to remedy under "Program Won't Load."
	Improper Recorder to Computer Interconnections	Tape recorder and the computer are not connected MIC-TO-MIC, or different color connectors are used.
		Check the transmitting cable and confirm that the <u>same color</u> connectors are secured to the MIC jacks in both the tape recorder and the computer.
		The MIC and the EAR jacks should <u>never</u> be connected simultaneously.
	Poor Quality Tape Cassette	Use only high-quality tape cassettes.

TO RETURN YOUR COMPUTER

If, after reviewing the troubleshooting data and attempting to correct the difficulty (do not attempt to disassemble your computer — use only the troubleshooting techniques listed in the table) the symptoms are still present, call our Hot Line 1-800-24-TIMEX to speak with one of our representatives.

In the event that you are instructed to return your computer for service, ship your computer to:

TIMEX Product Service Center
Building 19
Adams Field
Little Rock, AR 72203

Please do be sure to enclose a letter explaining the difficulty you've encountered and your name and address (please print as well).

Finally, for your own protection, we recommend that your computer be insured against loss or damage during transit.

RAMBLINGS
BOOK REVIEW

Combining a building block approach which proceeds from the rather simple to the rather complex with practical tools such as programming instructions, "hands-on" practice, and self-teaching exercises, the

book "Basic Programming for the Timex/Sinclair Computers" provides a broad introduction to the Timex/Sinclair BASIC programming language.

Using the book as a guide and the computer as a "teaching machine," the reader learns how to program by actually proceeding to write programs.

Sixty-four chapters cover the scope of programming conceptions elucidating diverse

subject matter such as keyboard familiarization, moving computer graphics, various math concepts, loops, branches, and string-slicing techniques.

Written by Joseph J. Charles and published by Hayden Books, "Basic Programming for the Timex/Sinclair Computer" will soon be available at your local book or computer store.

RAMBLIN' AROUND

Regardless of whether you're a beginner or an expert, one of the best ways to fully utilize your **TIMEX Personal Computer** is to share your enthusiasm and ideas with other members of your local **T/S User's Group**. **T/S Users' Groups** — like the ones listed below — would like to hear from new members like you.

CALIFORNIA

Valley Users' Group
1220 Hillcrest Avenue
Livermore, CA 94550
Contact: Don Shupp

Sacramento Timex/Sinclair Users' Group
3655 Sunset Blvd. No. 42
Rockline, CA 95677
Contact: Jim Hirlman

Comput/s Club
East San Diego Continuing Adult
Education School
5350 University Avenue
San Diego, CA
Contact: James Ardison

TSUNI
3325 Pierce Street
San Francisco, CA 94123
Contact: Walt Gaby

Woodland Timex Sinclair Users' Group
312 Beamer Street
Woodland, CA 95695
Contact: Robert L. Doud

COLORADO

Mile High Chapter T/S Users' Group
12026 W. Virginia Place
Lakewood, OH 80228
Contact: Peter J. Cillinicos

CONNECTICUT

The New Haven Sinclair Study Group
(for children)
16 Lewis Street
New Haven, CT 06513
Contact: Chris Baldwin

MICHIGAN

Prices Users' Group of Michigan
324 E. Tienken Road
Rochester, MI 48064
Contact: Ken Price

MISSOURI

Kansas City, Missouri Users' Group
4701 Northwest Linden Road
Kansas City, MO 64151
Contact: Carl E. Mutch

OHIO

Sinclair/Timex Users' Group of
Greater Cleveland
19502 Thornridge
Cleveland, OH 44144
Contact: Chris Raynak

RHODE ISLAND

Ocean State T/S Users' Group
15 Kilburn Ct.
Newport, RI 02840
Contact: Bob Dyl, Sr.

TEXAS

Timex-Sinclair Educators Users' Group
Texas Wesleyan College
School of Education
Fort Worth, TX 76105
Contact: M. Mark Wasicsko

VIRGINIA

Hampton Roads Timex/Sinclair Users' Group
146 Hawthorne Drive
Newport News, VA 23602
Contact: Jim Langston

Centennial Virginia Timex/Sinclair Users' Group
Route 1, Box 192
Troy, VA 22974

The Centennial Virginia Users' Group will be holding classes on the operation and programming of the **TIMEX Personal Computer**. Please contact Herb Miller for time, place, and date.

To learn the name and location of your local **T/S Users' Group**, please call our toll-free number 1-800-24-TIMEX.



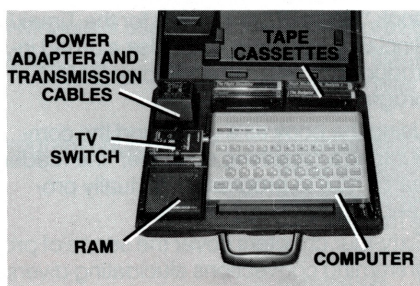
WE'VE BEEN TALKING ...

... With telecommunication services* like **COMPUERVE™**, **DOW JONES News/retrieval**, **MCI Mail™**, and **THE SOURCE™** to get you a money-saving trial offer — worth more than \$160.00. And, it's **FREE** with your purchase of the **T/S 2068 Color Computer** (**COMPUERVE** and **MCI**) and the **T/S 2050 Telecommunications Modem** (**THE SOURCE**); look in the package for the appropriate information.

*These services are provided by the Companies named and not by **TIMEX Computer Corp.**

WE GOT CARRIED AWAY ...

... With this special offer for the **TIMEX Personal Computer carrying case**. It's big enough to accommodate the **T/S 1000** or **T/S 1500** and its accessories, but small enough to accompany you wherever you go. This attractively designed, lightweight, and durable carrying case is just not available at any retail store; it's a **TIMEX Computer Club** members only special, at a special, low price. Only 2,000 available, so first-come, first-served.



YOU DON'T BUILD A CADILLAC — WITH CHEVY PARTS ...

... Just a simple way of reminding you to always insist upon genuine **TIMEX** replacement parts for your **TIMEX Personal Computer**.

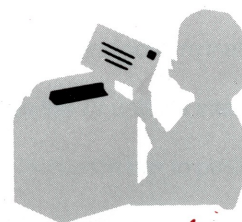
To order, simply complete the replacement parts order form enclosed with this newsletter and mail together with your check, money order, or credit card information — including applicable sales tax, if any. Please do be sure to *print* your name and address.

WE'VE MADE ARRANGEMENTS ...

... With the publishers of **SYNC** and **SYNTAX** magazines to offer exciting and economical subscription values to members of the **TIMEX Computer Club**. Take your pick from among three great magazines and mail the coupon(s) directly to the publisher.

WE'VE GOT SOFTHEARTED SOFTWARE

... For the **T/S 2068 Personal Computer**. More than 25 "user-friendly" cassettes or instant load cartridges are available to help you at home, in business, for school, or just for R and R (rest and recreation). So, select your favorites on the **RAMBLINGS** order form.



Ramblings

MAILBOX

First and foremost, **RAMBLINGS**, the **TIMEX Computer Club Newsletter** is a forum for you, the **T/S** user. Through this vehicle, **T/S** users — throughout the country — can exchange valuable and useful techniques, ideas, programs, and discuss other topics of mutual interest.

We gratefully solicit *your* articles, programs, suggestions, critiques, and brainstormers. Please mail your contributions to the **RAMBLINGS** Editor. All contributions become the property of **TIMEX** and none can be returned. We reserve the right to edit contributed materials to conform to space or editorial policies.

And if we publish your material during January through March, we'll say thank you by sending you a gift of two **TIMEX** software cassettes of your choice.

T/S 2068

CASSETTE SOFTWARE

Ramblings Special Order Form

Cassette Number	Cassette Description	Price	Qty.
CATEGORY: HOME SOFTWARE			
<input type="checkbox"/> 06-2000	BUDGETER	\$24.95	_____
<input type="checkbox"/> 06-2002	YARD IMPROVEMENT PLANNER	19.95	_____
<input type="checkbox"/> 06-2001	HOME IMPROVEMENT	19.95	_____
<input type="checkbox"/> 06-2004	CHECKBOOK MANAGER	19.95	_____
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<input type="checkbox"/> 06-2010	PERSONAL HOME FINANCE	19.95	_____
CATEGORY: BUSINESS SOFTWARE			
<input type="checkbox"/> 06-1000	VU-CALC	24.95	_____
<input type="checkbox"/> 06-1001	VU-FILE	24.95	_____
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<input type="checkbox"/> 06-3016	MATH WIZARDRY I	15.95	_____
<input type="checkbox"/> 06-3017	MATH WIZARDRY II	15.95	_____
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<input type="checkbox"/> 06-3020	WORD PLAY I	15.95	_____

Cassette Number	Cassette Description	Price	Qty.
<input type="checkbox"/> 06-3021	WORD PLAY II	15.95	_____
<input type="checkbox"/> 06-3025	LANGUAGE USAGE	19.95	_____
<input type="checkbox"/> 06-3028	CAPITALIZATION MASTER	15.95	_____
CATEGORY: ENTERTAINMENT SOFTWARE			
<input type="checkbox"/> 06-4000	PINBALL	19.95	_____
<input type="checkbox"/> 06-4001	ANDROIDS	19.95	_____
<input type="checkbox"/> 06-4002	PENETRATOR	19.95	_____
<input type="checkbox"/> 06-4004	CASINO I	15.95	_____
<input type="checkbox"/> 06-4005	CROSSFIRE	19.95	_____
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<input type="checkbox"/> 06-4009	GUARDIAN	15.95	_____
<input type="checkbox"/> 06-4010	STOCK MARKET SIMULATOR	19.95	_____
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Component Order Form

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T/S 1000 COMPONENTS		
<input type="checkbox"/> CPU Chip	\$12.00	_____
<input type="checkbox"/> ULA Chip	12.00	_____
<input type="checkbox"/> ROM Chip	12.00	_____
<input type="checkbox"/> 2KS-RAM Chip	10.00	_____
<input type="checkbox"/> Modulator	9.00	_____
<input type="checkbox"/> Keyboard	7.50	_____
<input type="checkbox"/> Case Assembly without keyboard	7.50	_____
<input type="checkbox"/> Resistor	3.00	_____
<input type="checkbox"/> Capacitor	3.00	_____
<input type="checkbox"/> Transistor	3.00	_____
<input type="checkbox"/> Jack	3.00	_____
<input type="checkbox"/> IC Connectors	3.00	_____
<input type="checkbox"/> Power Adapter	6.95	_____

Description	Price	Qty.
<input type="checkbox"/> Owner's Manual	7.50	_____
<input type="checkbox"/> Dual Audio Cable	4.95	_____
<input type="checkbox"/> TV Coax Cable	4.95	_____
<input type="checkbox"/> TV/Computer Switch	2.95	_____
<input type="checkbox"/> Printer Paper (3-roll pack)	7.95	_____
<input type="checkbox"/> T/S 1000 Schematic	2.50	_____
T/S 1016 RAM COMPONENTS		
<input type="checkbox"/> D-RAMS	6.00	_____
<input type="checkbox"/> AC-DC Transformer	6.00	_____
<input type="checkbox"/> Case Assembly	5.00	_____
<input type="checkbox"/> All IC's (TTL)	6.00	_____
<input type="checkbox"/> 22-Prong Edge Connector	7.50	_____
<input type="checkbox"/> T/S 1016 RAM Expansion Module Schematic	2.50	_____

Make Checks payable to **TIMEX**:

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COST OF ITEMS:

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\$ _____
\$ 2.50
\$ _____
\$ _____

SHIP TO (Please Print):

Name _____

Address _____

City _____

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Zip _____

Please allow 4-6 weeks for Delivery of Computer Equipment; 8-10 weeks for replacement parts.

*Residents of Connecticut Please add 7½% Sales Tax.

Remember that **TIMEX** software is also available at your local **TIMEX** retailer.

Order good only in the U.S.A.

Please fold, tape, and mail together with check, money order or credit card information. Coupons may be inserted as well, if desired.

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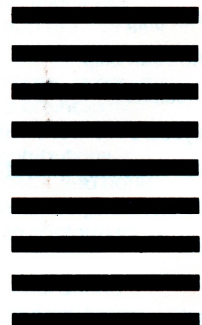
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MERIDEN, CT. 06450

NO POSTAGE
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UNITED STATES



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T/S 1000/1500™

COMPUTER CARRYING CASE

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- *Shoulder strap not available.

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SYNTAX newsletter brings you more fun & use for your TIMEX. Try this — see for yourself.

PROGRAM FOR 2068 OR SPECTRUM

```
10 LET a=16787: LET b=17748
30 LET s#=" THE SECRET "
40 LET b#="IN SYNTAX IS "
50 LET n=23888: BORDER 0
70 LET p=PEEK n+2556+PEEK (n+1)
100 FOR J=p TO p+32
107 IF PEEK J=14 THEN LET b#=b#
+CHR# PEEK (J+3)+CHR# PEEK (J+4)
200 NEXT J: PRINT AT 10,5;b#;"I
NGREDIENT",,AT 11,8;b#/" OVER 1/A
T 11,21; PAPER 6; FLASH 1);"
```

PROGRAM FOR ZX/TS WITH 8K ROM

```
10 LET A=1.0013783
20 LET B=1.0015017
30 LET A#=" THE SECRET "
40 LET B#="IN SYNTAX IS "
100 FOR J=16569 TO 16588
105 LET Z=PEEK J
107 IF Z=126 THEN LET B#=B#+CHR
# PEEK (J+3)+CHR# PEEK (J+4)
100 NEXT J
200 PRINT AT 10,5;A#;"INGREDIEN
T",,AT 11,8;B#
```

PRE-INTRODUCTION COUPON

Command Cartridge Player
Early Bird Price: \$19.95

- For **T/S 1500** and **T/S 1000 Personal Computers**
- Accepts Instant-Load Cartridges
- Up to 24K of Instant Programs
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- Software for Home, Business, Education, and Entertainment



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SYNC USER GROUP SAVINGS 40% OFF!

As an owner of a Timex-Sinclair you've discovered that the bigger computer magazines only cover the bigger computers. In SYNC, you'll find the features written for your Timex-Sinclair! You'll find in every issue:

- Program listings for games
- Helpful programming techniques
- New product reviews
- Math and Science programs and MUCH MUCH MORE!



SYNC USER GROUP DISCOUNT ORDER COUPON

This offer is made exclusively to members of Timex/Sinclair User Groups.
Please fill out below and mail to:

SYNC MAGAZINE
P.O. BOX 2938
BOULDER, COLORADO 80322

YES! Please enter my one-year (6-issue) subscription to SYNC for \$12.00.
I save 40% off the full one-year subscription price of \$19.97!

Mr/Mrs/Ms _____
(please print name in full)
Address _____
City _____ State _____ Zip _____
Check one: ☐ Payment enclosed ☐ Bill me later
Charge my: ☐ American Express ☐ Visa ☐ MasterCard
Card No. _____ Exp. Date _____

Please allow 60 to 90 days for delivery of first issue.

T/S 1510 COMMAND CARTRIDGE™ PLAYER ORDER COUPON

This offer is good only in the U.S.A. and is void where prohibited or restricted. All orders are subject to availability of the particular product. Please include \$2.75 per Cartridge Player for shipping and handling plus applicable sales tax*; if any. Please make your check or money order payable to **TIMEX** or indicate the appropriate credit card information and mail to:

TIMEX COMPUTER CORPORATION
P.O. BOX 1033, DEPT. TS
MERIDEN, CT 06450

Quantity ____ Cost \$ ____ Shipping & Handling \$ ____ Sales Tax \$ ____ TOTAL \$ ____
VISA No. ____ MasterCard No. ____ Expiration Date ____

PLEASE PRINT:

NAME _____
ADDRESS _____
CITY, STATE, ZIP _____

Please allow 4-6 weeks for delivery.

For faster service you may place your order by phone. Simply call 1-800-24-TIMEX.
Remember that **TIMEX** Computer products are also available at your local **TIMEX** retailer.

* Residents of Connecticut, please add 7 1/2% sales tax.

Fill out the coupon below and mail it to: SYNTAX RD2 Box 457, Harvard, MA 01451

YES! I want the secret ingredient, _____, from **SYNTAX**. Send me a **RAMBLINGS SPECIAL** — 15 monthly issues for the regular price of 12 — just \$29 for: **APPLICATIONS • UTILITIES • NEWS • REVIEWS • EXPANSIONS**

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Name _____ Title _____
Organization _____
Address _____
City _____ State _____ Zip _____
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TRI283

T/S 1000/1500™ CARRYING CASE ORDER COUPON

This offer is good only in the U.S.A. and is void where prohibited or restricted. All orders are subject to availability of the particular products. Please include \$5.00 per carrying case for shipping and handling plus applicable sales tax*; if any. Please make your check or money order payable to **TIMEX** or indicate the appropriate credit card information and mail to:

TIMEX COMPUTER CORPORATION
P.O. BOX 1040
MERIDEN, CT 06450

Quantity ____ Cost \$ ____ Shipping & Handling \$ ____ Sales Tax \$ ____ TOTAL \$ ____
VISA No. ____ MasterCard No. ____ Expiration Date ____
TIMEX Computer Club Membership No. ____

PLEASE PRINT:

NAME _____
ADDRESS _____
CITY, STATE, ZIP _____

Please allow 4-6 weeks for delivery.

For faster service, you may place your order by phone. Simply call 1-800-24-TIMEX.
Only 2,000; order filled on first-come, first-served basis.

* Residents of Connecticut, please add 7 1/2% sales tax.

TIMEX

2020

COMPUTER RECORDER COUPON

**T/S 2020
Program Recorder**

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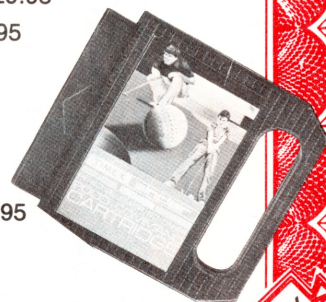
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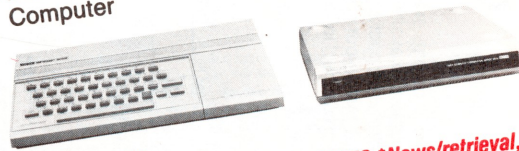
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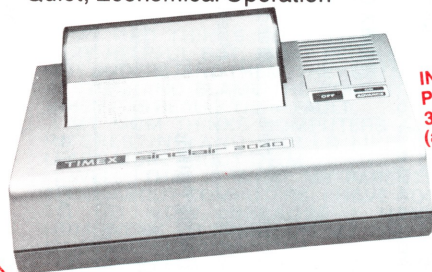
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|---|---------|
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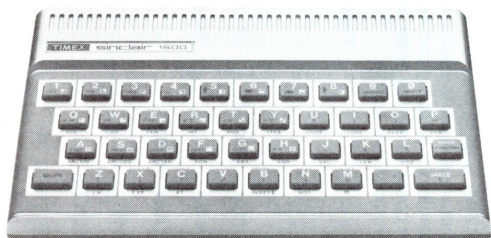
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- On-board 16K RAM
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1500

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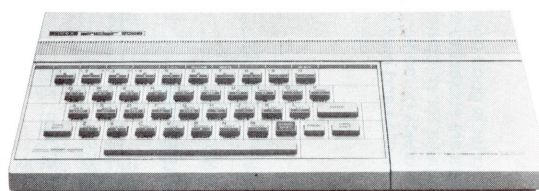
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Going Camping continued

CAMP TALK

Here's what campers had to say about summer computer camp at Texas Wesleyan College at Fort Worth, Texas (special thanks to Mark Wasicsko for letting us reproduce this material):

WHAT PARENTS THINK ABOUT COMPUTERS

BY DARLA DELETE AGE 12

HI, MY NAME IS DARLA DELETE, AND I AM GOING TO TELL YOU WHAT PARENTS THINK ABOUT COMPUTERS. I WENT ON AN INSIDE INTERVIEW WITH MY MOM AND DAD, AND HERE IS WHAT THEY THINK.

MY DAD THINKS COMPUTERS ARE VERY HELPFUL BUT, MOST PEOPLE DO NOT UNDERSTAND THEM. THEY GET MAD AT THEM AND BLAME THE COMPUTER, WHEN IT IS REALLY THEIR FAULT.

MY MOM THINKS COMPUTERS ARE INTERESTING AND WOULD LIKE TO LEARN MORE ABOUT THEM.

WELL, THAT IS WHAT MY PARENTS THINK ABOUT COMPUTERS. I HAVE GOT TO GO NOW, BECAUSE I HAVE HOMEWORK TO FINISH ON MY TIMEX-SINCLAIR 1000 COMPUTER.

GOODBYE AND THANK YOU FOR READING MY ARTICLE.

--DARLA



HOB0

COURTNEY IANNAZZO AGE 11

COMPUTERS, COMPUTERS

COMPUTERS, COMPUTERS, EVERYWHERE
APPLE, IBM, AND TIMEX SINCLAIR;

LOOK AROUND AND YOU WILL SEE

A COMPUTER JUST RIGHT FOR YOU AND ME

HOSPITALS, HOMES, SCHOOLS AND SUCH

BANKS AND BUSINESSES COULD NOT DO AS MUCH

WITHOUT THE COMPUTERS OF TODAY WHICH YOU AND I USE JUST TO

PLAY. BY ASHLEY BELL...AGE 10

WILLIE AND WILMA
GOTO COMPUTER CAMP

BY DANIEL RODDY AGE 9

THESE TWO RAMS
WILMA AND WILLIE
ARE GOING TO
TWC COMPUTER CAMP

DAN
WAGGONER
HALL



10 PRINT AT 2,2: "THESE TWO RAM
S ";TAB 2: "WILMA AND WILLIE ";TA
B 2: "ARE GOING TO";TAB 2: "TWC CO
MPUTER CAMP."

20 PRINT AT 3,21: "DAN
TAB 21: "WAGGONER";TAB 21: "H
ALL"

30 PRINT AT 8,2: " ";TAB 2: "T
AB 2: " ";TAB 2: " ";TAB 2: " "

2: " ";TAB 2: " ";TAB 2: " ";TAB 2: " "

2: " ";TAB 2: " ";TAB 2: " ";TAB 2: " "

2: " ";TAB 2: " ";TAB 2: " ";TAB 2: " "

2: " ";TAB 2: " ";TAB 2: " ";TAB 2: " "

40 PRINT AT 8,18: " ";TAB 18: "T
B 18: " ";TAB 18: " ";TAB 18: " "

18: " ";TAB 18: " ";TAB 18: " ";TAB 18: " "

18: " ";TAB 18: " ";TAB 18: " ";TAB 18: " "

50 PRINT AT 6,30: " ";TAB 30: " ";
TAB 30: " ";TAB 30: " ";TAB 30: " "

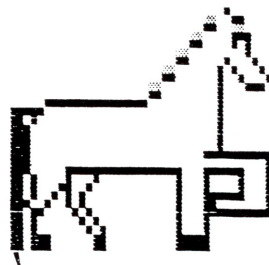
30: " ";TAB 30: " ";TAB 30: " ";TAB 30: " "

30: " ";TAB 30: " ";TAB 30: " ";TAB 30: " "

0: " ";TAB 30: " ";TAB 30: " ";TAB 30: " "

COMPUTER CAMP
BY REBEKAH BROWNING
AGE 7

WHEN I WAS AT COMPUTER CAMP, THERE WAS
GOOD FOOD IN THE CAFETERIA. IF YOU SPILL
SOMETHING, THE TEACHER WILL HELP PICK IT
UP.



JENNIFER VAN HORN

AGE 11

ACTIVITIES I CAN DO WITH MY
COMPUTER

BY DANNA MILLER...AGE 13

THERE ARE MANY PROGRAMS THAT YOU
CAN BUY TO USE WITH YOUR T/S 1000 HOME
COMPUTER. THERE ARE GAMES AND
INSTRUCTIONAL PROGRAMS. IN BUSINESS
MANAGEMENT IT CAN BE USED FOR
ACCOUNTING, BOOK KEEPING AND RECORD

KEEPING. IN HOME MANAGEMENT IT CAN BE
USED FOR THE ABOVE RECORD KEEPING AND
FOR MORE PERSONAL USES SUCH AS KEEPING
RECIPES, ADDRESSES, TELEPHONE NUMBERS
AND CHRISTMAS CARD LIST. FOR SCHOOL YOU
CAN PREPARE REPORTS, LEARN MATH AND
WORK MATH PROBLEMS. YOU CAN ALSO
LEARN TO PROGRAM THE T/S 1000 YOURSELF.
THIS WILL HELP PREPARE YOU FOR MORE
SOPHISTICATED COMPUTER STUDY. IN THE
NEAR FUTURE YOU WILL BE ABLE TO BUY
PROGRAMS SO THAT YOUR PERSONAL
COMPUTER WILL BE ABLE MONITOR YOUR
BURGLAR ALARM, CONTROL APPLIANCES,
WATER YOUR LAWN AND PERFORM MANY
DUTIES.

CHARLIE BROWN
BY CHRISTIN WASICSKO AGE 12



1 PRINT AT 1,5: "CHARLIE BROWN

2 PRINT AT 3,3: "BY CHRISTIN W
ASICSKO"

5 FOR I=0 TO 2*PI STEP PI/30
10 PLOT 30 + 10*COS I,22+10*SIN

15 NEXT I
20 PRINT AT 13,13: " ";
30 PRINT AT 10,15: " < "

40 PRINT AT 9,13: " [.] "

50 PRINT AT 15,12: " ";
100 PRINT AT 16,8: " ";

110 PRINT AT 17,8: " ";

120 PRINT AT 18,8: " ";

130 PRINT AT 19,8: " ";

140 PRINT AT 20,8: " ";

150 PRINT AT 21,8: " ";



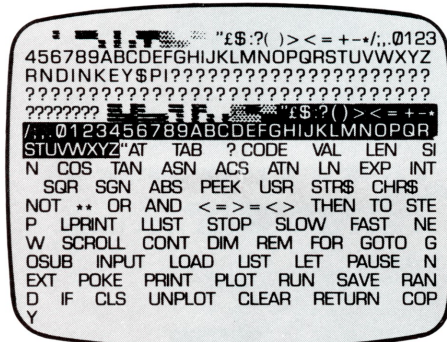
BITS/BYTES

Your **TIMEX Personal Computer** contains many tokens. And, while they may not pay for your subway ride, they'll surely pay off huge rewards in terms of memory conservation, simplicity of operation, and speed of data entry.

Each character (which you can see on your **T/S 1000/1500** keyboard) is represented by a numeric code which ranges between 0 and 255. The entire series of (255) codes is known as the Character Set — a type of alphabet for your **T/S** computer.

To display the entire character set (illustrated below) on your TV screen, run the following program (press the **BREAK** key to quit the program):

```
10 FOR A = 0 TO 255
20 PRINT CHR$ A;
30 NEXT A
```



Not only is each letter, number, special character, or graphic character represented by a numeric code, but so are the keywords (or tokens).

And, this very unique idea offers a very big advantage!

For example, your **T/S** keyboard has a six-letter (or character — a character is also roughly synonymous with a byte) keyword labeled **RETURN** (Y key). If typed manually, this word would consume six-bytes of memory (one for each letter) and you would be required to type all six-letters of this word to incorporate this command within a program.

However, since **RETURN** is a token, only one byte is consumed in memory; press the **Y** key (when the **K** cursor is displayed) and presto, the keyword **RETURN** is displayed on your TV screen.

That's exactly the reason why the cursor skips over the entire keyword when you backspace — or why the entire keyword is deleted when the delete function is employed.

Obviously, it's much faster and easier to press a single key instead of six of them — and that's the main idea behind the token!

TOKEN DECODING

Now that you've learned about a token and how it works, let's go one step further: With the use of the appropriate **T/S** command, you can specify a numeric code and the computer will display the appropriate token; or conversely, you can specify a token, and the computer will display its numeric code. Let's see how this works!

A **PRINT CHR\$** command (**CHR\$** is produced by pressing the **U** key when the **F** cursor is displayed) which specifies a particular numeric code, yields the appropriate letter, number, special character graphic character or token:

```
PRINT CHR$ 3      Yields: █
PRINT CHR$ 14     Yields: :
PRINT CHR$ 200    Yields: COS
```

In a similar manner the **PRINT CODE** command (**CODE** is produced by pressing the **I** key when the **F** cursor is displayed) displays the numeric code when the token has been specified:

```
PRINT CODE "$"    Yields: 13
PRINT CODE "B"    Yields: 39
PRINT CODE "OR"   Yields: 217
PRINT CODE "GOTO" Yields: 236
```

Note that the letter, number, special character, graphic character, or token must be entered as a string (i.e.; within quotes) in order to utilize the **CODE** command.

Therefore, you may correctly assume that any string can be correspondingly decoded. However, since, the **CODE** command examines *only* the first element of a string, the computer will display the same answer (i.e.; 44) for all of the following strings: "GAMES", "GEORGE", "GOTO".

By the way, have you tried to obtain the **CODE** of the **GOTO** command from your computer yet? I'll bet you obtained the code of 44 instead of 236! Do you know why?

Well, there is a perfectly good and legitimate reason for this:

Because it is a keyword or token, the **GOTO** command can only be entered when the **K** cursor is displayed; it won't work if you type **GOTO** manually.

Now, since you entered **PRINT CODE** as the first portion of the command, the **L** cursor has been generated; this causes the computer to reject the entry of the **GOTO** command as a token.

So, to get around this, you probably typed **GOTO** manually — which as we said, is a no ... no.

Furthermore, by manually typing **GOTO** as a string, the computer examines only the first letter (G) of the string and displays code 44 which is correct for the G, but wrong for the **GOTO**.

Regardless of what happened, we still want to obtain the code of the token, and to do so, we must "trick" the computer into accepting the command. So, here's what we must do:

1. With the **K** cursor displayed on the screen, enter the **GOTO** command.
2. Simultaneously press the **SHIFT** and the Backspace key (key **5**) to move the cursor to the left of the **GOTO** command; this generates the **K** cursor.
3. Enter, in turn, the **PRINT** command, the **CODE** command, and the first set of quotes:

```
PRINT CODE "GOTO"
```

4. Advance the cursor to the right of the **GOTO** command by simultaneously pressing the **SHIFT** and the Advance key (key **8**); then enter the second set of quotes:

```
PRINT CODE "GOTO"
```

Press the **ENTER** key to run the command.

Tricky, wasn't it? But, don't worry, I'll accept your token of thanks.



The official **TIMEX®** Computer Club Newsletter, is published monthly by **TIMEX** Computer Corporation, P.O. Box 2655, Waterbury, CT 06725. Please direct all correspondence to the Editor.

Editor
Paul Schirloff

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THE FORUM

OOPS

The Letters to the Editor column in Issue #4 contained three printing errors:

Robert Cauffman's **REM** suggestion should have been printed as follows:

```
FROM:
410 LET L$(N) = S$(TO 29)
415 GOTO 500
      TO:
410 REM LET L$(N) = S$(TO 29)
411 LET L$(N) = S$(TO 23)
415 GOTO 500
```

And David Farmer's rounding-off correction for the Checkbook Manager was printed in the wrong position. The statement is:

```
2391 LET BA = INT (BA*100 + .1)/100
```

In the Bobsled Program, lines 70 and 75 should read:

```
70 PRINT AT 10,C;"V"; AT 10,C" "
75 PRINT AT 10,C;"="
```

Do not **RUN** to execute the program; instead enter the command **GOTO 1000**.

We apologize for any inconvenience resulting from these errors.

LETTERS TO THE EDITOR

"BUG" COLLECTOR

Meade Frierson III maintains a collection of "bugs" and other programming problems (and the appropriate solutions) on 3½" x 5" index cards. So, when a "bug" raises its ugly head, this Birmingham, Alabama, resident flips through the cards and frequently finds the appropriate "anti-bug" solution.

SOUNDING OFF ON ROUNDING OFF

All you need to do is incorporate the following one-line statement into your program to reduce large numbers into a much more manageable figure, says **T/S** user Joe Matherly of Coral Springs, Florida.

```
LET Z = INT (Z*.10**X) + .5) *(10**--X)
```

As illustrated by the programs below, X represents the variable in your program and Y is the number of places after the decimal point.

UNROUNDED

```
10 LET X = 25
20 LET Y = 3.8
30 LET Z = X/Y
40 PRINT AT 10,5;Z
      = 6.5789474
```

ROUNDED

```
10 LET X = 25
20 LET Y = 3.8
30 LET Z = X/Y
40 LET Z = INT (Z*(10**2) + .5)*(10**--2)
50 PRINT AT 10,5;Z
      = 6.58
```

THE PROFESSIONAL TOUCH

Here's a tip that comes to us from Dick Sieg's Cleveland, Ohio, Timex/Sinclair User Group announcement:

The **PAUSE 4E4** command can be used to stop a program when this command is encountered. Then, when you press any key, the program resumes from the point of interruption.

PROGRAMMING CAN BE FUN

You can duplicate the following programs on your **TIMEX Personal Computer** to find out just how much fun programming can be. We are indebted to the **T/S** users identified by the first program **REM** for submitting the programs to **RAMBLINGS**.

MUSICAL COMPUTER

One of the least publicized — but potentially most enjoyable — capabilities of the **TIMEX Personal Computer** is the ability to produce music. As demonstrated by the program below, a series of endless **FOR/NEXT** loops (five in this program) of varying duration simulate the different notes of a musical scale.

To play this composition, place a portable AM radio next to the TV jack of your computer. Tune the radio to an open frequency for the best sound reproduction. Now, **RUN** to execute the program and **BREAK** to stop it.

```
5 REM BY JULIE KNOTT AND
  DAVE PROCHNOW, BELLEVUE, NE.
7 REM DESCENDING TONES
10 FOR A = 1 TO 5
20 FOR B = 1 TO 25
30 GOSUB 190
40 NEXT B
50 FOR C = 1 TO 50
60 GOSUB 190
70 NEXT C
80 FOR D = 1 TO 75
90 GOSUB 190
100 NEXT D
```

```
110 FOR E = 1 TO 50
120 GOSUB 190
130 NEXT E
140 FOR F = 1 TO 100
150 GOSUB 190
160 NEXT F
170 NEXT A
180 GOTO 10
190 SLOW
200 FAST
210 RETURN
```

Altering the tone duration is accomplished by changing the upper limit of the **FOR/NEXT** statement; tone color is modified by adding different keywords in Statement 195 (try **CLS**, **SCROLL**, **RUN** and **GOTO**).

WHIZ KIDS

Most youngsters (and many adults) are particularly attracted to moving graphics. So, one of our **T/S** "whiz kids" has contributed this "Electronic Crayon" program which lets you draw pictures on your **T/S 1000 Personal Computer**. **RUN** to execute the program, **BREAK** to stop, press the **C** key to clear the screen to start a new drawing, and use the Arrow keys (**5,6,7,8**) to produce your "T/S masterpiece."

```
5 REM BY MICHAEL BOUCHER
7 REM ELECTRONIC CRAYON
10 PRINT "USE THE ARROW KEYS TO
  DRAW ANY --"
11 PRINT "THING YOU WANT. USE
  THE KEY"
12 PRINT "TO CLEAR THE SCREEN
  AND START"
13 PRINT "OVER."
20 PAUSE 100
30 CLS
40 LET A = 30
50 LET B = 10
60 PLOT A,B
70 IF INKEY$ = "5" THEN GOTO 130
80 IF INKEY$ = "6" THEN GOTO 150
90 IF INKEY$ = "7" THEN GOTO 170
100 IF INKEY$ = "8" THEN GOTO 190
110 IF INKEY$ = "C" THEN GOTO 30
120 GOTO 60
130 LET A = A - 1
140 GOTO 60
150 LET B = B - 1
160 GOTO 60
170 LET B = B + 1
180 GOTO 60
190 LET A = A + 1
200 GOTO 60
```



COMPUTER VOCABULARY

Computer terminology is a specialized and unique language. To the first-time or uninitiated computer owner, this "jargon" can be misleading or confusing.

Each issue, we'll list some of the common (and not so common) computer terms. These highly simplified definitions will help you better understand your computer and its "lingo." Spend a few minutes to learn these terms, and you'll soon be talking like a computer professional.

Bit — Smallest unit of computer information. Eight-bits are required to comprise one-byte. A bit is a binary digit which represents 0 or 1 — providing the computer with a YES/NO (or ON/OFF) alternative.

Byte — The smallest addressable unit in the system, a byte is composed of eight-binary digits (bits) which are taken as a unit. A computer is usually classified by the number of bytes it can store (i.e., a 16K computer stores 16,384 bytes).

Character — A letter, digit, or symbol that represents data. A character and a byte are roughly synonymous.

Command — An instruction to the computer.

EDP — This acronym stands for Electronic Data Processing. And, because a computer is capable of processing large amounts of data at a high rate of speed, the computer is typically considered to be an EDP system.

Keyboard — Hardware unit on the computer (may be separate unit on modular computer system) which is utilized by the operator to type input to the computer. There are different types of keyboards (e.g., the **TIMEX 1000** contains a 40-key membrane-type keyboard; the **TIMEX 1500** keyboard is equipped with 40-typewriter-style, movable keys).

List — Command to the **T/S Personal Computer** to display the program in memory on the TV screen. The number of program lines displayed is limited by the physical capacity of the TV screen (i.e., displays the first 22-lines). Program lines not shown because of the screen size limitation can be displayed by a **LIST** command and

the appropriate line number (i.e., **LIST 2000**).

Print — Execution of this program command causes the **TIMEX Personal Computer** to produce a TV screen display of that data input from the keyboard.

RAM Expansion Module — It is used to expand the storage capacity of the computer. The **TIMEX RAM Expansion Module**, for example, increases the storage capacity by 16K (i.e., to 32,768 characters in the T/S 1500).

Run — Command which tells the computer to execute the program.

Statement — Program line consisting of a line or sequence number (i.e. 10) a command (i.e. **LET**) and the instructions that define the parameters of the instructions (i.e., **LET I = 5**; 10 **LET I = 5**).



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